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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------------|------------------------|
| 09/835,121 | 04/13/2001 | Margaret M. Leahy | OSJ-002RCE3 | 4218 |
| 959 | 7590 | 12/19/2007 | | |
| LAHIVE & COCKFIELD, LLP ONE POST OFFICE SQUARE BOSTON, MA 02109-2127 | | | EXAMINER HOFFMAN, SUSAN COE | |
| | | | ART UNIT 1655 | PAPER NUMBER |
| | | | MAIL DATE 12/19/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 09/835,121 | Applicant(s) LEAHY ET AL. | |
| | Examiner Susan Coe Hoffman | Art Unit 1655 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11, 14, 21-25 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11, 14, 21-25 and 27-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>11/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed October 1, 2007 has been received and entered.
2. Claims 11, 14, 21-25, and 27-32 are pending.
3. In Paper No. 5, applicant elected with traverse phenolic acid, specifically cinnamic acid for species D.
4. Claims 11, 14, 21-25 and 27-32 are examined on the merits solely in regards to the elected species.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11,14, 21-25, and 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mantius et al. (US 5,320,861), Zafriri et al. (Antimicrobial Agents and Chemotherapy (1989), vol. 33, no. 1. pp. 92-98) and Sperti et al. (US 4,477,361).

Mantius teaches a cranberry juice product that is defined by applicant as the Tomah presscake (see page 6 of the specification). Mantius does not teach enriching this product in cinnamic acids. However, Zafriri teaches that cranberry juice is an antibacterial agent against *Escherichia coli*. An artisan of ordinary skill would then reasonably expect that the cranberry juice of Mantius would also function as antibacterial agent against *E. coli*. This reasonable

expectation of success would motivate the artisan to use the Tomah presscake of Mantius to treat *E. coli* infection.

Sperti teaches that cinnamic acid is an antibacterial agent against *Escherichia coli* (see claims and column 2).

These references show that it was well known in the art at the time of the invention to use the claimed ingredients in antibacterial compositions against *E. coli*. It is well known that it is *prima facie* obvious to combine two or more ingredients each of which is taught by the prior art to be useful for the same purpose in order to form a third composition which is useful for the same purpose. The idea for combining them flows logically from their having been used individually in the prior art. *In re Pinten*, 459 F.2d 1053, 173 USPQ 801 (CCPA 1972); *In re Susi*, 58 CCPA 1074, 1079-80; 440 F.2d 442, 445; 169 USPQ 423, 426 (1971); *In re Crockett*, 47 CCPA 1018, 1020-21; 279 F.2d 274, 276-277; 126 USPQ 186, 188 (1960).

Based on the disclosure by these references that these substances are used in antibacterial compositions against *E. coli*, an artisan of ordinary skill would have a reasonable expectation that a combination of the substances would also be useful in creating a single antibacterial composition against *E. coli*. Therefore, the artisan would have been motivated to combine the claimed ingredients into a single composition. No patentable invention resides in combining old ingredients of known properties where the results obtained thereby are no more than the additive effect of the ingredients. See *In re Sussman*, 1943 C.D. 518; *In re Huellmantel* 139 USPQ 496; *In re Crockett* 126 USPQ 186.

The references together are considered to teach combining the Tomah presscake and cinnamic acid together into a single composition. Thus, the resulting composition is a cranberry

extract product enriched in cinnamic acid because the cranberry extract product would have more cinnamic acid than naturally present in the Tomah presscake. Therefore, the references together teach a cranberry product with a greater amount of cinnamic acid than would be found the Tomah presscake.

The references do not teach that the composition has the same pharmaceutical properties claimed by applicant. However, these are considered to be recitations of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

6. Claims 11,14, 21-25, and 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mantius in view of Marwan (J. Food Sci. (1982), vol, 47, pp. 774-778), Liu et al. (Int. J. Cancer (1995), vol. 62, pp. 345-350) and prior art admitted by applicant.

Mantius teaches the cranberry product, the Tomah presscake. Mantius does not teach enriching the Tomah presscake for cinnamic acid. Marwan teaches that cinnamic acid is present in cranberries. Thus, an artisan of ordinary skill would reasonably expect that the Tomah presscake of Mantius would contain cinnamic acid. Liu teaches that cinnamic acid is useful in treating a variety of cancers. The artisan would also reasonably expect that it would be beneficial to increase the concentration of cinnamic acid in this product based on the teaching of Liu that cinnamic acid is useful in treating cancer. Therefore, an artisan of ordinary skill would be motivated to modify the Tomah presscake of Mantius to enrich the presscake for cinnamic acids based on the teaching by Liu that cinnamic acids are beneficial compounds. Applicant's

specification admits that methods for creating fractions rich in cinnamic acid were known in the art at the time of the invention (see page 16). Thus, the artisan would have possessed the skills necessary to create the cinnamic acid enriched Tomah presscake product taught by the combination of Mantius, Marwan and Liu. Therefore, the references together teach a cranberry product with a greater amount of cinnamic acid than would be found the Tomah presscake.

7. No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Coe Hoffman whose telephone number is (571) 272-0963. The examiner can normally be reached on Monday-Thursday, 9:30-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on (571) 272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Susan Coe Hoffman
Primary Examiner
Art Unit 1655